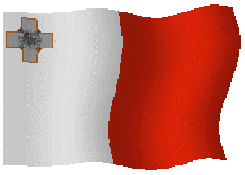
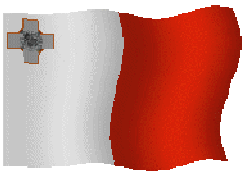


MARL



MALTA

Magazine by MARL

For Maltese and Gozitan Radio Amateurs

Number 18

September 2007

Smoking is prohibited at the Centre

From the Editor

Friends,
I welcome you to another issue of this magazine for September 2007, which is issue 18 of this series.

It's good to remind you that our society is a voluntary organisation. Therefore, whoever can give a helping hand by doing something however small at the Centre, would be helping to make our centre and facilities better for the other members.

If one sees that there is an antenna or something else that requires maintenance or need to be repaired and can give a helping hand, they should talk to a committee member or better still to **Paul 9H1SP** who is in charge of the running and all the works at the Club so that he can see when they can do whatever is required.

It sometimes happens that when someone sees, as an example, an antenna that needs to be repaired, they suggest that we get a professional antenna repairer and pay him to repair it.

Although I believe that such suggestions are made with a good intention so that things will be repaired quickly, I think that this will be a waste of money when we are a voluntary organisation and we do not have thousands of liri to be spent carelessly, while we have to take care of many things at the club.

To spend money wisely is useful for everyone, more so for MARL and for every other voluntary organisation.

Moreover, if the repairs or maintenance are carried out by members, we will not only be saving money that we can use for something else, but the members themselves will be acquiring experience which they will find useful when they need it themselves.

In the same manner, if one is at the centre and gets hold of a few QSL cards and sorts them out in the members' boxes they would not be doing anything wrong. They would be helping in MARL and the other members' needs and those who usually take care of distributing the QSL cards.

Remember that as it is said, it is better to light a candle than to curse darkness.

Since I have mentioned QSL cards, I wish to thank everyone who is helping to sort them out and putting them in members' boxes.

As regards smoking, it appears that notwithstanding the notices both at the Club and in this magazine, there are some members who forget and start smoking inside the Club. **We remind them that this is not only against the law**, but it is also a **lack of respect** for the non-smoking members.

Apart from the fact that **they are breaking the law**, we hope that these members become aware with the damage that they are causing by smoking, not only to themselves but also to others who have to inhale their smoke.

We congratulate these new radio amateurs

Agius Joseph		
Aquilina Joseph	**9H5AJ**	**aqujoe@maltanet.net**
Azzopardi Maria	**9H1BG (booked)**	
Chetcuti Matthew		
Debono Joseph		
Galea Michael	**9H5DX**	
Xerri Kenneth		
Xerri Jason	**9H5JX**	
Żammit Matthew		

This month we are going to hold a BBQ so that the members could get together in an informal manner, eat George's and his assistants' good food, and at the same time we will have some more funds for our society. You can see the advert on the last page, but the members will also receive a letter by snail mail.

I hope that you find the information in this magazine useful for you and if you have an article please leave it in my QSL box.

Lawrence 9H1AV / 9H9MHR

Think a little bit

Think a little bit on this problem. Einstein had said that nothing can travel faster than the speed of light. But is this true? Or are there some qualifications that he did not state?

Lets say that temporarily we accept what Einstein had said that nothing can travel at a speed greater than the speed of light, but at the same time we make the following points and observations.

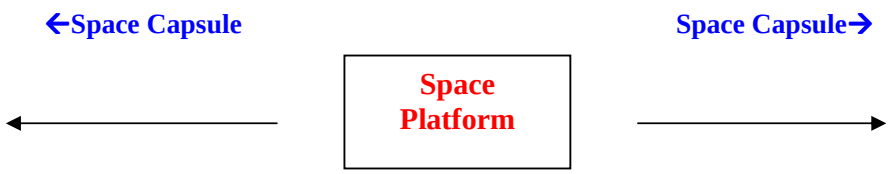
These points and observations show that under certain circumstances, the speed can be relatively less than the speed of light while at the same time it will also be relatively greater than the speed of light.

How can something that is travelling at a particular speed be considered to be travelling at two or more different speeds at the same time?

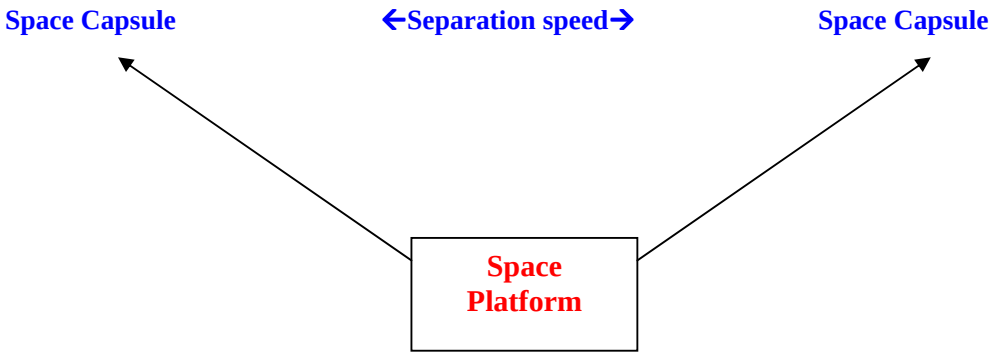
Have a look at whether this makes sense by involving your mind a little bit more than usual or do some lateral thinking.

Imagine that you are on a platform in space. Imagine that you have the means to send a space capsule with a person on board in a particular direction with a speed that is slightly greater than half the speed of light.

Then, imagine that you send another space capsule with a person on board in a directly opposite direction, also with a speed slightly greater than half the speed of light.



The direction may not be directly opposite, but the smaller the angle between the directions of the two capsules the greater will have to be their speed so that the separation speed between them will be greater than the speed of light.



Now you have to use your minds a little bit more than usual for the following.

First point: It is true that relative to the space platform no space capsule would be exceeding the speed of light. But it is also true that the relative separation speed between the two space capsules is greater than the speed of light. Therefore, relative to each other, the two space capsules would be travelling at a speed greater than the speed of light.

Observation: Was Einstein correct when he said that nothing can travel at a speed greater than the speed of light? Or did he leave something out?

Point two: The speed of radio waves is the same as the speed of light.

Observation: The speed of separation between the two space capsules is greater than the speed of light.

Observation: The radio waves transmitted from a space capsule can never be received by the other space capsule, and therefore, they can never communicate directly between themselves.

Point three: The speed of each space capsule relative to the space platform is less than the speed of light.

Observation: Radio waves travel at the speed of light. Since the speed with which the space capsules are travelling away from the space platform is lower than the speed of light, the radio waves will arrive at the space platform and also from the space platform to the space capsules.

The frequency used will have to be corrected for doppler shift caused by the speed of the space capsules, which correction will depend on the frequency used and the speed of the space capsules relative to the space platform.

Observation: The signals will not arrive immediately but after a certain time that depends on how far apart are the space capsules from the space platform.

Observation: Since the capsules are travelling away from the space platform with a speed lower than the speed of light, the persons on each space capsule can communicate with the space platform.

Observation: In the same manner, a person on the space platform can communicate directly with each person on the two space capsules.

Point four: Radio signals transmitted from the space platform travel to the space capsules and from the space capsules to the space platform at the speed of light.

Observation: Theoretically, if there is a repeater on the space platform, the two space capsules can communicate with each other because the radio waves transmitted by a space capsule are heard on the space platform and are retransmitted with the speed of light to the other space capsule.

In other words, the repeater would appear as if it is increasing the speed of the radio waves, although it would actually be retransmitting them again. There will always be a little delay between receiving and retransmitting of the signals due to delays in equipment, apart from the delay that depends on the distance between the space capsules and the space platform.

Observation: The same reasoning applies if it were possible that the space capsules and the space platform had lights on them or they communicate by light rays instead of radio waves. If they had the means that however far away they get they could see the light, they will not be able to see each other's light while they will see the light on the space platform and the space platform could see theirs.

Observation: In the same manner, if there were a light repeater on the space platform that repeated the light rays, they would be able to see the light rays that would have been retransmitted by the space platform.

Let's complicate it a little bit more

Let's say that from their end, each space capsule sends again another space capsule in the same direction with a speed slightly greater than the speed of light.

With the arguments and the observations that have previously been made, the new capsules will be able to communicate with the space capsules that had sent them, but they will not be able to communicate with the space platform because the separation speed between them will be greater than the speed of light.

However, if on each space capsule there were also a repeater, the space capsules that were sent last would not only be able to communicate with the space capsules that had sent them, but would also be able to communicate with the original space platform and also between themselves by means of repeaters.

This can continue each time a space capsule sends another space capsule, although there will always be an increase in the time between the start of transmission and its reception on the other side because of the distance that the radio waves would have to travel.

Do these arguments and considerations make sense to you? Or did Einstein leave something out? Or did he give us some idea or lead which no one had taken notice of previously? Because even if we accept Einstein's theory, it appears that there are many things that have to be considered, including that an object can be travelling at two or more speeds at the same time and relatively even more than the speed of light.

I hope that these few considerations you will make your mind work a little more than usual and also send in your opinions.

Lawrence 9H1AV / 9H9MHR

News

500 kHz

Today we bring you news that on the frequency of **500 kHz**, there is now also a station from the Czech Republic who was given permission to use this frequency.

This station is that of Lubos, **OK2BVG**. Lubos was granted the callsign **OK0EMW**, is on **505.060 kHz**, and has an erp or 1 Watt. The location of the station is in Breclav, Locator

This station uses **CW** and **QRSS3**, while the message is "**Beacon OK0EMW JN88KS**" on CW, with the call-sign and locator repeated on QRSS3.

This station has already been heard in the United Kingdom at a distance of more than 1,200 kilometres.

70 MHz

This year, all Italian radio amateurs have been given temporary permission to use the **70 MHz** frequency band. They were given permission to use **70.1, 70.2 and 70.3 +- 12.5 kHz** and they can use all modes of transmission and can use these frequencies from 11 July to 31 December 2007.

Although the permission is for this year, there is no doubt that later on they will be given permission to continue to use this frequency that will be added to the other frequencies that can be used by Italian radio amateurs.

Don't forget that apart from the UK radio amateurs that have been given this frequency for more than 50 years and a number of other countries in Africa, Asia and in the Pacific, there are also a substantial number of European countries that their radio amateurs have been given this frequency.

This means that Maltese radio amateurs may use this frequency if they are in Italy this year and whenever they happen to be in Italian territory if the Italian radio amateurs are given this frequency permanently.

When are the Maltese authorities going to wake up to the developments around us and give us permission so that we can also use this frequency when there are many countries in Europe that have given it to their radio amateurs?

This information is found on the ARI internet webpage http://www.ari.it/vhf/70mhz.php

Don't forget that there are many other countries, among them Greece, where radio amateurs can use this frequency. Whoever wants can download the frequency band-plan from the Greek radio amateurs association RAAG, www.raag.org and search for it, or directly from www.raag.org/licensing_en.html

On this frequency, the distance which had been established on 17 November 1980 when G4BPY on 70 MHz had talked with VEIASJ on 50 MHz with a distance of 4591 kilometres has been broken. Later on, more contacts were made with the stations of G4JCC and GW4HXO.

The following year contacts were also made with Ireland with EI6AS and EI6DT. This was at the peak of the sunspot cycle and the propagation method was via reflection from the F2 layer.

On 25 June this year, contacts were again made between VE9AA on 50 MHz and G7CNF on 70 MHz. The distance between them was 4612 kilometres. What was different from the previous contacts was that the propagation method was by multi-hop via e-sporadic while the sunspot numbers are at their lowest in the cycle.

There were also contacts between LC0VHF from Norway who had special permission to use this frequency between 8 and 10 June during the Northern VHF meeting.

During these three days they had contacts with England (G), Isle of Man (GD), Northern Ireland (GI), Scotland (GM), Wales (GW), Denmark (OZ), Ireland (EI), and Slovenia (S5).

There were also communications between OY1CT from the Faroe Islands and England and Wales. Other stations heard were from Greece (SV), Portugal (CT), Gibraltar (ZB3) and Croatia (9A)

Therefore, whoever thought that this frequency is only suitable for local working was mistaken and when one day we are given permission to use it there's no doubt that it will give you enjoyment as much as the other frequencies.

New prefixes for Bosnia & Herzegovina

On the application of the Minister for Communication and Transport of Bosnia & Herzegovina to change their prefixes, the ITU accepted the application and instead of the series **T9A – T9Z**, they are going to start using **E7A – E7Z**. Probably these will come into effect later on his year.

High speed internet

One of the problems caused by certain methods of internet transmissions is the interference when radio frequencies are used on power cables. Now there is a project in France where they are using fibre-optic cables for internet transmission.

Although this is nothing new, the use of fibre-optic was considered expensive when compared with other transmission methods. But if you think that the service is very expensive you have to think again.

A **12 Mbs** service in Paris costs **14 euros per month** and apart from internet you also have a free telephone service. A packet, including television, internet and telephone costs 30 euros per month with the TV set top-box being given free with the service.

This is still nothing, because two companies, France Telecom Orange and Free are laying down a fibre-optic system with a speed of 100 Mbs.

When one considers the speed, the wages and the payments demanded for these packets s/he will see how in Malta we are being skinned alive by the internet service providers.

Apart from these considerations, the development of this system will continue to reduce the expenses as well as increasing the service by attracting more subscribers. But the best result will be that the transmission on power cables will be reduced and thus the interference which this internet transmission system causes on radio will be eliminated.

This information was found on http://news.bbc.co.uk/go/pr/fr/-/2/hi/technology/6936325.stm

Thanks from the scouts

After MARL had taken part in the 100 anniversary celebrations of the setting up of the scout movement, MARL Secretary received an e-mail from the scouts which he passed on to the MARL group.

From: Ivan Privitera [iprivitera@global.net.mt]
Sent: Is-Sibt, 4 ta' Awissu 2007 17:52
To: marlegroup
Subject: Fw: Well Done

Attachments: To_All.doc

Dear Ivan,

On behalf of the Scout Association of Malta, the Chief Scout and the organizing committee, I would like to thank you as the secretary of MARL and all those amateurs who participated in the scouting sunrise for a job well done.

Thanks & regards

Mark Catania / Joseph Zerafa (NJO)

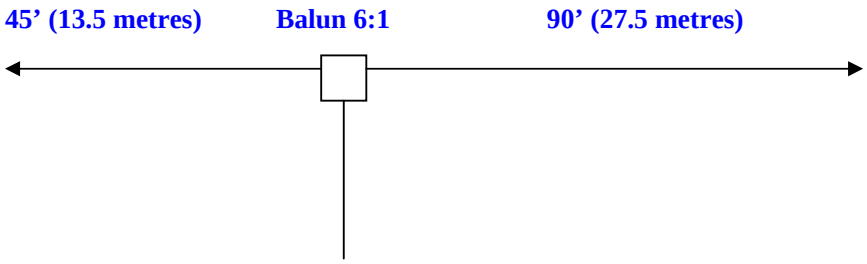
Lawrence 9H1AV / 9H9MHR

9H1VC Carolina Windom

Today we have an article about the Carolina Windom by James, **9H1VC** whom we thank for his article. A similar antenna was regularly used by James, as well as during the operation in commemoration of the Scouts 100 anniversary from the Floriana Granaries.

The size of this antenna is approximately the same as an **80-metre** dipole and works on all frequencies from **3.5 MHz** to **28 MHz**, although on **21 MHz** you have to use an **ATU** because the SWR is around 3:1. Thus this antenna works without an **ATU** on **3.5** / **7** / **10** / **14** / **18** / **24** / **28** MHZ directly and with an **ATU** on **21 MHz**.

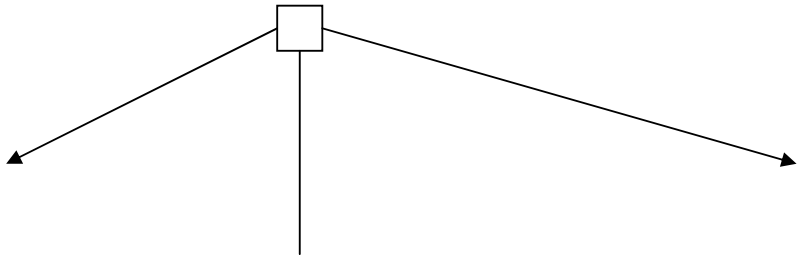
This was also checked with an antenna analyzer and James says that the SWR was low on all frequencies from 3.5 MHz to 28 MHz except as stated on 21 MHz.



50 Ohms coaxial cable as required

As you can see, one side is 45 feet long while the other side is 90 feet. Overall it is 135 long, which is the same size as an 80-metre dipole.

45 feet (13.5 metres) **Balun 6:1** **90 feet (27.5 metres)**



50 Ohms coaxial cable as required

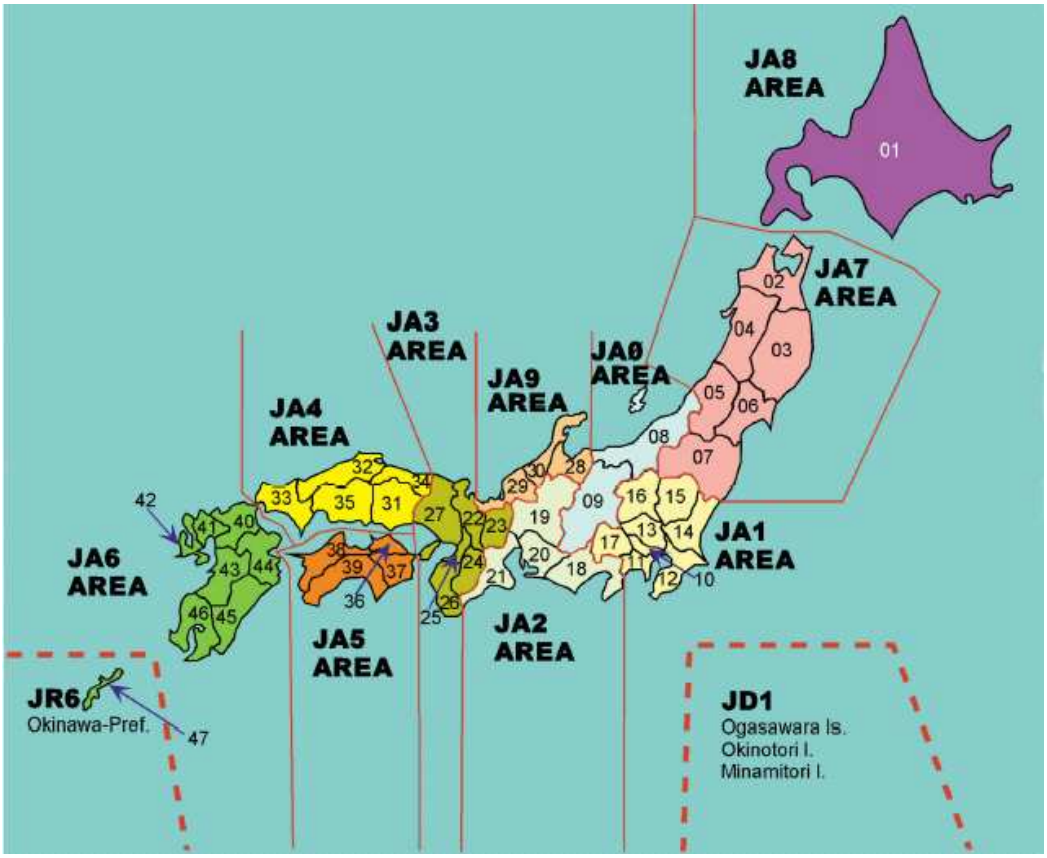
This antenna can also be used as an inverted V with the ends near the ground. It is recommended that the ends shall be higher than 10 feet, both as protection against the high voltages that are always at the end of the antenna so that they cannot be touched by people as well as for antenna efficiency.

It is recommended that when it is used as an inverted V, the angle between the wires should not be less than 120^0.

James 9H1VC

Japanese Districts Map

As we have sometimes done, today we are giving you a map of another country, this time Japan with its districts and prefixes for different parts of Japan so that you will know the area you are talking to. This map is found on the Japan Amateur Radio League webpage.



Kanto District Area 1
10 Tokyo
11 Kanagawa
12 Chiba
13 Saitama
14 Ibaraki
15 Tochigi
16 Gunma
17 Yamanashi

Tokai District Area 2
18 Shizuoka
19 Gifu
20 Aichi
21 Mie

Kansai District Area 3
22 Kyoto
23 Shiga
24 Nara
25 Osaka
26 Wakayama
27 Hyogo

Chukogu DistrictArea 4
31
32
33
34
35

Shikoku District Area 5
36
37
37
39

Distrett Kyushu Area 6
40
41
42
43
44
45
46
47

Tohoku District Area 7
02
03
04
05
06
07

Hokkaido District Area 8
01

Hokuriku District Area 9
28
29
30

Shin'etsu District Area 0
08
09
Total 47 Prefectures
Three JD1 islands with Tokyo 10 these prefixes are assigned for Area 1 7K1-7K4, 7L1-7L4, 7M1-7M4, 7N1-7N4

Lawrence 9H1AV / 9H9MHR

For Sale

Yaesu HF transceiver FT901DM, digital and analogue frequency, all modes, general HF coverage receiver, works on 240VAC or 12VDC. Internal speaker and microphone included. Asking Lm320. Call **Tony Camilleri**, **9H1HG**, Tel 21 44 27 32.

Information

There are many who besides the radio amateur hobby also have the hobby of listening for broadcasting stations from other counties on short wave. There are others who only have this hobby while there may be others who may want to know where to listen to these stations. Today therefore, I am going to give you some information on the spread of frequencies used by these broadcasting stations on short wave.

Don't forget that each particular station has its particular frequencies according to international norms and agreements, which one it uses depends on what audience or country it wants to target, time of transmission, season, sunspot cycle, transmitter power, the place that it transmits from, and also other considerations. Don't forget that particular frequencies may be used in certain parts of the world and cannot be used in other parts because they would be allocated to other services.

There will also be other stations known as pirate stations that just start transmission on a frequency that they choose. Therefore, who has the hobby of listening on short waves can enjoy his hobby for hours.

Don't forget that you can make antennas for particular frequencies and also directional, but the vast majority make a long wire as high as possible for use on all frequencies.

As they are known

Metres	Frequency
120 metres	2.300 – 2.498 MHz
90 metres	3.200 – 3.400 MHz
60 metres	4.750 – 4.995 MHz
49 metres	5.950 – 6.250 MHz
41 metres	7.100 – 7.300 MHz
31 metres	9.500 – 9.900 MHz
25 metres	11.650 – 11.975 MHz
22 metres	13.600 – 13.800 MHz
19 metres	15.100 – 15.600 MHz
16 metres	17.550 – 17.900 MHz
13 metres	21.450 – 21.850 MHz
11 metres	25.670 – 26.100 MHz

Don't forget that broadcast stations will now have to vacate from 7.1 to 7.2 MHz by 2009 because it has been allocated to radio amateurs. Outside Region 1, radio amateurs also have between 7 to 7.3 and 7 to 7.2 MHz. Work is being done so that 7 to 7.3 MHz will again all be allocated to radio amateurs as it was originally.

Lawrence 9H1AV / 9H9MHR

9H1ES on Etna

These are photos of Fortunato when he went to operate on 10 GHz from Mount Etna on Sunday 26 August 2007.

Here is Fortunato with his 10 GHz apparatus that only used a horn as an antenna.

Fortunato also had a GPS system so that he would know his exact position.

He was also using a frequency 144.39 MHz for talkback in order to coordinate everything.

Here is a closer view of the apparatus used by Fortunato.

Note that even on 144 MHz all that Fortunato was using was only a vertical antenna connected to the apparatus

We have to remember that Fortunato was in at a high elevation and therefore had a good advantage.

Here we have another photo taken from a slightly different angle.

Here Fortunato appears to have found his feet again. (see the first photo)

The contacts were on 10.368200 GHz on SSB and power was 200 milliwatts. Fortunato managed to contact **9H1FM Richard**, **9H1FX Noel**, **9H1GB Mansweto**, **9H1VW Joe**.

We congratulate Fortunato and encourage other radio amateurs to tell us if they have done anything.

Lawrence 9H1AV / 9H9MHR

BBQ

We are going to hold a BBQ at the MARL Club on Saturday 29 September from 7.00 p.m. onwards.

Food is meat or fish together with a glass of wine or soft drink and dessert. Children food will be hamburger + salad. Those who choose meat will have pieces of chicken, meat and pork. Those who choose fish will have different pieces of fish.

Members will receive a letter with details. Prior booking and payment. Adults Lm4 up to 2 children to 12 years free. Whoever wants to come should contact George 9H1AT or Maria 9H1BG or Joe 9H5AJ by Tuesday 25 September 2007 not to be disappointed.

Come and bring your family and friends and enjoy yourselves.